

CLAIMS

1. A method for controlling the flow of a heat activated expandable sealant comprising:
providing a heat activated expandable sealant;
applying a flow control agent to at least a portion of said sealant, said sealant having a higher melt flow rate than said flow control agent; and
heating said sealant with said flow control agent to cause said sealant to flow in a controlled manner.

2. The method of claim 1 wherein the melt flow rate of said sealant is greater than the melt flow rate of said flow control agent.

3. The method of claim 1 including thermoforming said sealant into a shape prior to applying said flow control agent.

4. The method of claim 1 including thermoforming said sealant into a shape after applying said flow control agent.

5. The method of claim 1 including securing said sealant with said flow control agent to a component containing a gap or cavity prior to heating.

6. The method of claim 1 wherein said sealant with said flow control agent applied thereto is heated to a temperature of between about 250°F to 400°F.

7. The method of claim 1 wherein said heat activated expandable sealant and said flow control agent are selected from the group consisting of acrylic resins, styrene-butadiene block copolymers, isoprene butadiene block copolymers, ester gums, ethylene propylene diamene rubber, ethylene vinyl acetate, hydrocarbon resins, phenolic resins, polyamides, polyethylene, polyesters, polyolefins, polypropylene, polyvinyl acetate, polyvinylidene chloride, polyvinyl chloride, styrene butadiene, terpolymers, and vinyl acetate.

8. The method of claim 1 wherein said heat activated expandable sealant includes a blowing agent.

9. The method of claim 1 wherein said heat activated expandable sealant comprises modified polyethylene, a styrene-butadiene copolymer, a hydrocarbon resin, ethylene vinyl acetate, and a blowing agent.

10. The method of claim 1 wherein said flow control agent is selected from the group consisting of latex vinyl chloride paint, modified vinyl-acetate polymers and copolymers, natural rubber latex, synthetic elastomeric polymers, and nitrile rubbers.

11. The method of claim 1 wherein said flow control agent comprises a polyvinyl acetate.

12. The method of claim 1 wherein said flow control agent is in the form of a mesh or film.

13. The method of claim 1 wherein said flow control agent is in the form of a liquid coating.

420
355 AC
355 AC
355 AC

Sub B1

14. A method for controlling the flow of a non-expandable sealant comprising: providing a non-expandable sealant; applying a flow control agent over at least a portion of the sealant, said sealant having a higher melt flow rate than said flow control agent; and heating said sealant to cause said sealant to flow.

Sub B1

15. In combination, a heat activated expandable sealant and a flow control agent on at least a portion of said sealant, said combination adapted to seal a gap or cavity in a component; said heat activated expandable sealant having a melt flow rate which is higher than the melt flow rate of said flow control agent.

Sub B2

16. The combination of claim 15 wherein said heat activated expandable sealant comprises modified polyethylene, a styrene-butadiene copolymer, a hydrocarbon resin, and ethylene vinyl acetate.

Sub B2

17. The combination of claim 15 wherein said flow control agent coating comprises a polyvinyl acetate.

Sub C4

18. The combination of claim 15 wherein said heat activated expandable sealant is in the form of an extruded sheet or thermoformed part.

19. The combination of claim 15 wherein, upon heating, said heat activated expandable sealant with said flow control agent exhibits less sagging than a heat activated expandable sealant without said flow control agent.

428
317.3

312.5
319.3
319.9

Mike Barr
10 A
Bed 2

20. A method of sealing a cavity in a component comprising:
providing a heat activated expandable sealant;
applying a flow control agent to at least a portion of said sealant, said sealant
having a higher melt flow rate than said flow control agent; and
positioning said heat activated expandable sealant with said flow control agent
over said cavity of said component, and
heating said sealant and flow control agent to cause said sealant to flow into and
seal said cavity.

160 *427* *Add B3*